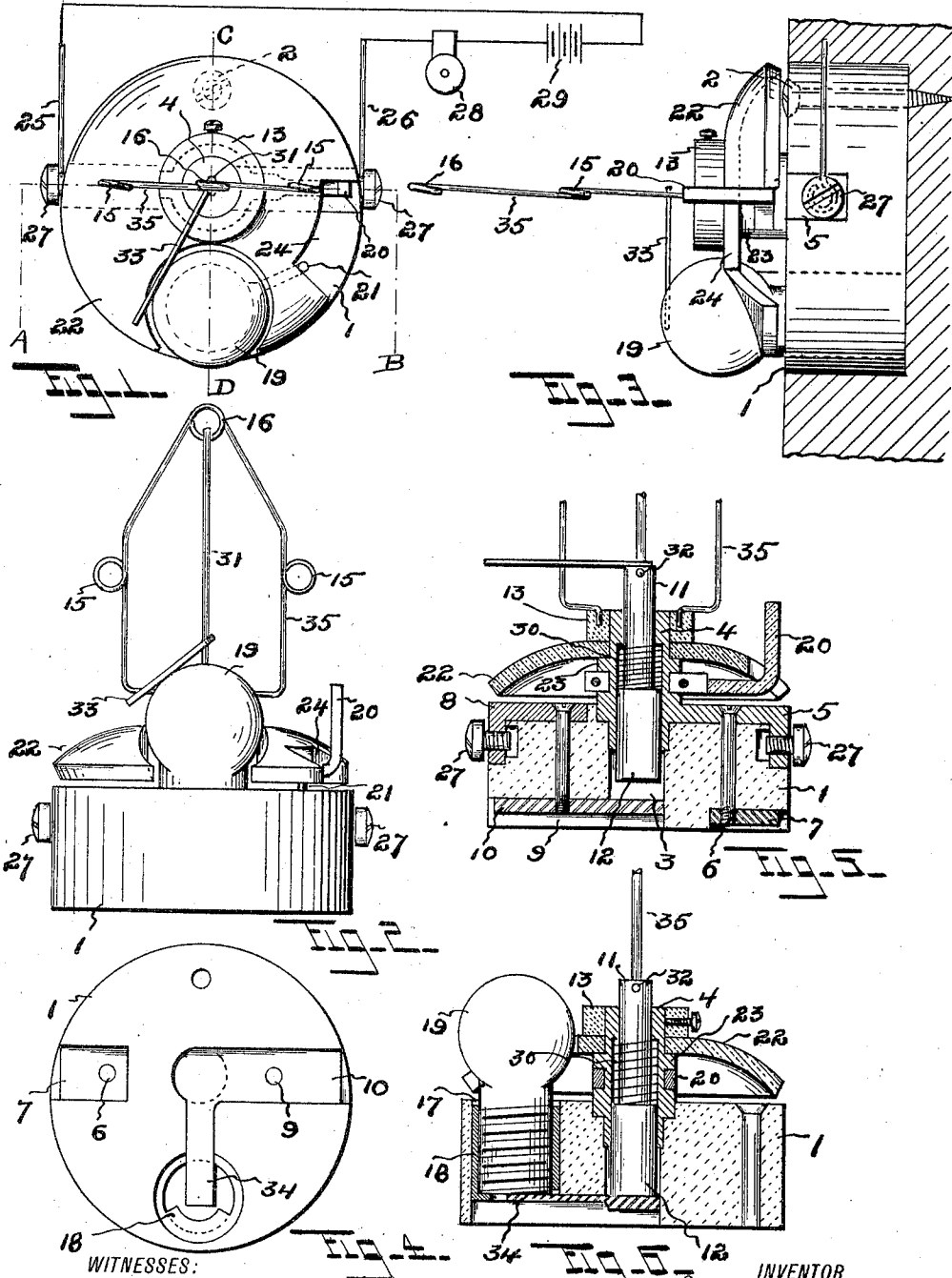


J. MARSHAK.
ALARM DEVICE.

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1,036,869.

Patented Aug. 27, 1912.



WITNESSES:

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ALARM DEVICE.

1,036,869.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JACOB MARSHAK, a subject of Nicholas II, Emperor of Russia, residing at New Haven, in the county of New Haven, State of Connecticut, United States of America, have invented certain new and useful Improvements in Alarm Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to new and useful improvements in alarm devices, and more particularly to a device that will automatically announce the starting of a fire, preferably through the ringing of a bell, and has for its object, among other things, to provide such a device, that will be neat and pleasing in appearance, positive in its operation, and composed of few parts, so designed as to be economically and readily assembled at the minimum cost.

To these, and other ends, my invention consists in the alarm device, having certain details of construction and combinations of parts, as will be hereinafter described and more particularly pointed out in the claims.

Referring to the drawings, in which like numerals of reference designate like parts in the several figures: Figure 1 is a plan view of my device complete; Fig. 2 is a front elevation thereof; Fig. 3 is a side elevation thereof; Fig. 4 is a view of the underside of the device; Fig. 5 is a sectional view thereof upon line A—B of Fig. 1; and Fig. 6 is a sectional view upon line C—D of Fig. 1.

In the practice of my invention I provide a base member 1, which is preferably, although not necessarily, of circular form, and may be secured to a wall or other surface by a screw 2, which passes therethrough (see Fig. 3). This block is made of glass, fiber, or other non-conducting material, and within the opening 3 therein projects the lower end of a sleeve 4, having a radial arm 5 thereon, secured to the base member 1 by the screw 6, which is threaded into the retaining plate 7.

Diametrically opposite the radial arm 5 is the plate 8, that is secured to the base member by the screw 9 that passes therethrough and threaded into the retaining plate 10.

Movable axially within the bore of the

sleeve 4 is the plug 11, terminating at its lower end in the head portion 12. Fixed to the upper end of the sleeve 4 is a collar 13, within which is secured the opposite ends of a retaining loop 35, which is preferably formed with the coils 15 and 16 for the purpose of insuring rigidity thereto.

Extending through the base member 1, parallel to the opening 3, is the opening 17, within which is fixed the bushing 18, into which is threaded the shank of the electric lamp 19.

Rotatably mounted on the sleeve 4, by any desired means, is the test arm 20, the movement of which is limited in one direction by the contact pin 21 connected with the bushing 18 as shown by dotted lines in Fig. 1.

A cover 22 that conceals the mechanism and gives a neat and pleasing appearance to the front of the device, is secured to the sleeve 4 between the integral collar 23 and the collar 13, the radial slot 24 therethrough providing ample space for movement of the upwardly projecting portion of the test arm 20. I prefer to provide this slot in the cover member for the movement of the test arm 20, but it may be omitted if desired, and the arm made sufficiently long to extend outside of said cover member.

Suitable wires 25 and 26 are respectively secured to the plate 8 and arm 5 by the screws 27 in a well known manner, which wires are connected with a bell 28 and a battery 29.

The plug 11 is held in its up position against the tension of the spring 30, as shown in Fig. 5, by the wire connection 31, that passes through an opening 32 near the top of said plug and the coil 16. This wire connection is made of metal that will melt at a very low temperature, and in order that the same will be melted at the earliest possible moment, when a fire starts, I attach thereto an arm 33 of celluloid or other highly inflammable material, which will catch fire and burn at a much less heat than is required to melt the wire connection.

It will be observed that when the device is set, that the electric circuit is broken, there being no electric connection between the arm 5 and the plate 8, the plug 11 being held in its up position by reason of the connection 31. If, however, it is desired to

test the electric circuit, the test arm 20 is moved about the sleeve 4 from the position shown by full lines in Fig. 1 until it engages the contact pin 21, at which time the circuit is closed through the bushing 18 and the spring arm 34, integral with the plate 10, and the lamp will be lighted if the circuit is complete and in working order.

In case a fire starts in the vicinity of one of these devices the heat will set the arm 33 on fire, which will create sufficient heat to melt the wire connection 31 and release the plug 11 that is moved by the spring 30, so that the end thereof contacts with the plate 10, thereby closing the circuit and causing the bell 28 to ring.

These devices may be located at convenient places in the house, business office or factory, hotels or other places, and the bell arranged at a point where notice will be immediately taken of the ringing thereof. The bell may even be placed outside of an unoccupied building, if desired.

There are minor changes and alterations that can be made within my invention, aside from those herein suggested, and I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but claim all that falls fairly within the spirit and scope of my invention.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A device of the class described comprising a supporting base, a metallic member, a main movable contact on said member and electrically engaging the same, a fixed contact adapted to be engaged by the movable contact, a device which at normal temperature holds the movable contact separated from the fixed contact, a testing device on the base having one terminal connected with the fixed contact, a circuit including a signal, and a source of current connected with the fixed contact and with the said member, and a secondary contact mounted on the said metallic member and movable into electrical connection with the other terminal of the testing device to close the circuit through the latter while the main movable contact is held out of engagement with the fixed contact for testing said device.

2. An apparatus of the class described comprising a supporting base, a metal sleeve mounted thereon, a movable contact in the sleeve and electrically connected therewith, a fixed contact arranged on the base to be engaged by the movable contact, means in the sleeve for urging the movable contact toward the fixed contact, a fusible element for holding the contact separated against the action of the said means, a testing device on the base having one terminal con-

nected with the fixed contact, a circuit connected with the fixed contact and with the said sleeve, and a movable contact carried by and electrically connected with the sleeve and movable into electrical connection with the other terminal of the testing device for closing the circuit through the latter.

3. An apparatus of the class described, comprising a base, a sleeve thereon, a movable contact in the sleeve, a fixed contact on the base adapted to be engaged by the movable contact, a normally open signal circuit closed by the engagement of the movable with the fixed contact, a fusible element for holding the movable contact out of engagement with the fixed contact, a testing device on the base having one terminal connected with the fixed contact, a cover fastened to the sleeve and attached thereby to the base, a contact movable on the sleeve and disposed between the cover and base and movable into electrical connection with the other terminal of the testing device to close the circuit through the latter.

4. An apparatus of the class described comprising a supporting base, a metallic sleeve, a movable contact in the sleeve and having its ends extending therefrom, a fixed contact on the base adapted to be engaged by one end of the movable contact, a spring in the sleeve and operating on the movable contact to urge the latter into engagement with the fixed contact, a frame on the sleeve, a fusible element connected with the frame and with the end of the movable contact opposite from the fixed contact, a testing device on the base, a signal circuit connected with the fixed contact and with the sleeve to be closed when the movable contact engages the fixed contact upon the fusing of the said element, and means for closing the circuit through the testing device when the said contacts are separated.

5. An apparatus of the class described comprising a base, a testing device thereon, a sleeve having one end anchored in the base and projecting upwardly therefrom, a movable contact in the sleeve, a fixed contact connected with one terminal of the testing device, means in the sleeve tending to move the movable contact into engagement with the fixed contact, a testing contact mounted on the sleeve and movable thereon for connection with the other terminal of the testing device to close the circuit through the latter when the fixed and movable contacts are separated, a base cover on the upper end of the sleeve, a shoulder on the sleeve against which the cover bears, a collar fastened to the sleeve for retaining the cover in place, a device carried by and extending outwardly from the collar, said movable contact having a portion extending out of the upper end of the sleeve, and a fusible element connected with the device and with

the upper end of the movable contact to hold the latter at normal temperature out of engagement with the fixed contact.

6. An apparatus of the class described
5 comprising a base having an opening, a sleeve fitted in the opening with one end extending therefrom, a movable contact in the sleeve, a fixed contact on the base adapted to be engaged by the movable contact, a
10 spring in the sleeve acting on the movable contact to urge the same toward the fixed contact, means for connecting the sleeve and fixed contact with the signal circuit, said

movable contact having one end projecting from the sleeve, a fusible element connected 15 with the projecting end of the movable contact, a frame secured on the sleeve and to which the fusible element is connected, and a cover secured on the sleeve between the base and frame. 20

In testimony whereof I affix my signature in presence of two witnesses.

JACOB MARSHAK.

Witnesses:

GEORGE E. HALL,
FLORENCE H. MONK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
